

FILE 'PCTFULL, EUROPATFULL' ENTERED AT 10:11:42 ON 21 JUN 2001
L1 10 S (CHOLINE OXIDASE) AND (TRANSGENIC(3A) PLANT)
L2 10 DUP REM L1 (0 DUPLICATES REMOVED)
L3 0 S L2 NOT PY>1997

L2 ANSWER 24 OF 62 BIOSIS COPYRIGHT 2002 BIOSIS
AN 2000:416890 BIOSIS
DN PREV200000416890
TI The feeding behaviour of *Schistocerca gregaria*, the desert locust, on two starch mutants of *Arabidopsis thaliana*.
AU Wright, Geraldine A.; Raubenheimer, David (1); Hill, Steven; Simpson, Stephen J.
CS (1) Dept. Zoology, Oxford University, South Parks Road, Oxford, OX1 3PS UK
SO Chemoecology, (2000) Vol. 10, No. 2, pp. 59-67. print.
ISSN: 0937-7409.
DT Article
LA English
SL English
AB *Schistocerca gregaria*, the desert locust, has been shown to regulate its dietary intake with respect to specific macronutrients in synthetic foods. This study examined the nutrients in the leaves of two starch mutants of ***Arabidopsis thaliana***, and then compared the **feeding** behaviour of locusts on the two starch mutants. The high-starch mutant had c. 25 times more starch than the no-starch mutant. Newly molted 5th stadium locusts were preconditioned for 3 days on one of the mutants, and then observed for 90 min while exposed to the same or the alternative mutant. Locusts pretreated with the no-starch mutant fed longer during the first meal on high-starch mutants, spent more time feeding, and had the smaller latency to begin a meal when compared to the locusts pretreated on the high-starch mutant. The results of the study are interpreted in light of an integrative model of nutrient balancing.

L2 ANSWER 54 OF 62 BIOSIS COPYRIGHT 2002 BIOSIS DUPLICATE 33
AN 1996:330927 BIOSIS
DN PREV199699053283
TI Effects of ultraviolet-B exposure of ***Arabidopsis thaliana*** on herbivory by two crucifer-**feeding** insects (Lepidoptera).
AU Grant-Pettersson, J.; Renwick, J. A. A. (1)
CS (1) Boyce Thompson Inst. Plant Res., Tower Rd., Ithaca, NY 14853 USA
SO Environmental Entomology, (1996) Vol. 25, No. 1, pp. 135-142.
ISSN: 0046-225X.
DT Article
LA English
AB Larvae of *Pieris rapae* (L.) (Lepidoptera: Pieridae) and *Trichoplusia ni* (Hubner) (Lepidoptera: Noctuidae) were fed foliage from *Arabidopsis thaliana* (L.) Heynh. plants that had received a high dose of ultraviolet-B (UV-B) or from control plants. Treatments were compared using the Student independent t-test. *P. rapae* larvae consumed less of the foliage exposed to UV-B than control foliage. This difference was significant in older but not younger larvae, and the older *P. rapae* larvae fed foliage exposed to UV-B weighed significantly less. For *T. ni*, however, consumption and larval weights were approximately equal for UV-exposed and control foliage. No significant differences in growth rates per unit consumption on UV-exposed versus control foliage were found for either species. Chemical analysis showed that flavonoid levels increased in response to UV-B. Results suggested that UV-inducible flavonoids may act as feeding deterrents to *P. rapae* but not to *T. ni*.

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